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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/765,359
Filing Date: January 28, 2004
Appellant(s): KISHIOKA ET AL.

Jennifer M. Hayes
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 11/22/2010 appealing from the Office action mailed 04/01/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1, 2, 5, and 6 are rejected and pending.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

US 2002/0098352 A1 Kishioka 07-2002

EP 0 930 322 A2 Takahira, Hitoshi et al. 07-1999

Minoru Okabe et al., "Structure of Clear Touch Panel", English translation of JP 07-105781, 04/21/1995.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. **Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to**

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

2. Regarding claim 1 limitation "the major monomer for the respective pressure-sensitive adhesive layers is constituted from the **same monomer**", the specification fails to provide support for said limitation. While there are specific examples in the specification that utilize polymer made from the same monomer, i.e. **butyl acrylate**, this does not provide support to broadly recite that the major monomer for each layer is constituted from the same monomer. In other words, claim language of "same monomer" is broader in scope than what is supported by the specification. While specification provides support to recite that major monomer component in each PSA layer is butyl acrylate as stated on page 21 and in Example 1 of the specification, there is no support to broadly recite "same monomer".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishioka (US 2002/0098352 A1) in view of Hitoshi et al. (EP 0930322A2).**

4. Regarding claim 1 and 5 recitations "adhesive sheet to be used in sticking and fixing a touch panel to a display surface of a display device" and "The double-sided pressure-sensitive adhesive sheet...which is used for fixing a display device to a touch panel in the inner touch panel system" are interpreted as an intended use of the double-sided PSA sheet.

5. Kishioka discloses a pressure-sensitive adhesive composition and a pressure-sensitive adhesive sheet that is used to stick and fix an optical film on the display panel of a display device (abstract).

6. As to the claim limitation of "wherein the double-sided pressure-sensitive adhesive sheet has at least two pressure-sensitive adhesive layer but does not have a substrate", at paragraph 0065 Kishioka discloses "The pressure-sensitive adhesive layer can be constituted of a **plurality of layers** through another layer or **through no another layer**" (0065). This disclosure of Kishioka is interpreted to meet applicant's aforementioned claim limitation.

7. As to the claim requirement of "wherein the double-sided pressure-sensitive adhesive sheet has a thickness of 10 to 50 μm ", it is noted that at paragraph 0064, Kishioka discloses thickness of the individual PSA layer in general ranges from 5 to 500

μm and from about 10 to 100 μm. Further, Kishioka states that the thickness of the PSA layer can be appropriately set as long as the handling properties are not deteriorated (0064). While Kishioka does not explicitly teach the total thickness of the double-sided PSA sheet as claimed, it is submitted that based on the information given in Kishioka's disclosure with respect to the individual thickness of the PSA layer, selecting the total thickness of the PSA sheet so as to arrive at the applicant's claimed thickness would have been obvious, motivated by the desire to provide suitable handling properties to the double-sided PSA sheet of Kishioka.

8. With respect to the claim recitation "wherein the respective pressure-sensitive adhesive layers each comprises an acrylic polymer containing...dodecyl (meth)acrylate", the pressure sensitive adhesive of Kishioka is formed of acrylic polymer comprising monomer components of the aromatic ring-containing copolymerizable monomers, the copolymerizable monomers containing no aromatic ring, the monomer for modification etc. (0043). As monomers containing no aromatic ring, Kishioka discloses monomers such as alkyl (meth) acrylates wherein the alkyl group has from one to 18 carbons. These monomers are methyl (meth) acrylate, ethyl (meth)acrylate etc. (see 0038-0039).

9. With respect to the claim limitation "the major monomer for the respective pressure-sensitive adhesive layers is constituted from the same monomer", the Examiner submits that as set forth previously, Kishioka's PSA sheet includes plurality of

PSA layers (0065) and Kishioka further discloses same PSA composition as that of claimed by applicant (0039). Therefore, it would have been obvious to form each PSA layer of Kishioka's adhesive sheet from same monomer, motivated by the desire to simplify the process of forming the PSA sheet.

10. Kishioka is silent as to teaching "the proportion of the major monomer component constituting each pressure-sensitive adhesive layer is 80% by weight or more based on the whole amount of the monomer components".

11. However, Hitoshi discloses a pressure-sensitive adhesive sheet based on acrylic adhesives that are useful as fixing tape, masking tapes, etc. for electronic parts (0002-0003). The adhesive tape of Hitoshi comprises from 70 to 100% by weight of a (meth)acrylic acid alkyl ester having on average 2 to 14 carbon atoms of the alkyl group based on the total amount of the monomers (0008). Additionally, the disclosure of Hitoshi at paragraph 0017 is interpreted as the presence of 85% to 95% by weight of (meth) acrylic acid alkyl ester monomer provides well balanced adhesive property and heat resistance. Further, the adhesive sheet of Hitoshi is excellent in transparency, foaming resistance, low out-gassing property, heat resistant and weather resistant (abstract).

12. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the proportion of the major monomer

component in the amount of 80% by weight or more in the pressure-sensitive adhesive layer, motivated by the desire to form the pressure-sensitive adhesive tape having excellent adhesive property, heat resistance, foaming resistance, low gas-out property, discoloring resistance, and transparency.

13. As to the claim features "the double-sided pressure-sensitive adhesive sheet is capable of being adhered substantially entirely on the touch panel, and the other surface is capable of being adhered substantially entirely on the display surface of the display device", the double-sided PSA sheet having "optical isotropy", and "wherein the pressure-sensitive adhesive layer in the touch panel side has 180° peeling adhesive strength...so that the double-sided pressure-sensitive adhesive sheet is...touch panel", it is reasonable to presume that said features are necessarily present in the double-sided PSA sheet of Kishioka as modified by Hiroshi.

14. The support for said presumption is based on the fact that the double-sided PSA sheets of Applicant and that of Kishioka as modified by Hitoshi comprise at least two PSA layers wherein the PSA sheet has thickness of 10 to 50 μm . Further, the double-sided PSA sheet of Kishioka as modified by Hitoshi comprise same acrylic polymer as set forth in claim 1.

15. Based on the aforementioned facts, the double-sided PSA sheet of Kishioka as modified by Hiroshi is structurally and compositionally equivalent to the double-sided

PSA sheet of applicant as claimed in claim 1. Therefore, the aforementioned properties would intrinsically be present in the double-sided PSA sheet of Kishioka as modified by Hiroshi. The burden is shifted to applicant to prove it otherwise (*In re Fitzgerald*, 205 USPQ 594).

16. Regarding claim 2, it is respectfully submitted that Kishioka generally discloses that the PSA layer of his invention can be constituted of **plurality of layers** (0065). Thus, choosing the number of PSA layers (e.g. three to five) as claimed would have been obvious, motivated by the desire to form PSA sheet having suitable thickness with suitable handling properties.

17. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishioka (US 2002/0098352 A1) in view of Hitoshi et al. (EP 0 930 322 A2) as applied to claims 1, 2, and 5 above, and further in view of Okabe et al. (JP 07-105781-abstract and English translation).**

18. Regarding claim 6, Kishioka does not explicitly teach a touch-panel provided display device, wherein a display device and a touch panel are fixed to each other via the double-sided adhesive sheet.

19. However, Okabe discloses a transparent touch panel structure wherein the transparent touch panel and the display panel is stuck to each other by an acrylic adhesive with good transparent property (see abstract).

20. It is noted that Kishioka generally discloses a sheet wherein the PSA composition has excellent adhesive performance (0082). Further the PSA sheet of Kishioka is used in the liquid crystal display area. Kishioka does not explicitly teach a touch panel-provided display device. However, the reference of Okabe discloses such a claimed display device, wherein the display device and the touch panel are fixed to each other by the double-sided adhesive sheet.

21. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the double-sided adhesive sheet of Kishioka as modified by Hiroshi and bond the touch panel and display device as taught by Okabe, motivated by the desire to form a touch panel-provided display device that has excellent adhesive performance.

(10) Response to Argument

Argument # 1

22. Appellants assert that the 112-first paragraph rejection of claims 1, 2, and 5 for lack of enablement should be reversed because the Examiner has not met his burden of establishing the claimed invention requires undue experimentation (see brief pages 10-13).

23. In response, the Examiner respectfully submits that appellants' arguments are not commensurate in scope with the basis of the 112-first paragraph rejection currently pending on the record. Specifically, as indicated on page 2 section 2 of the advisory

action (AA) mailed on 09/30/2010, the enablement rejection has been withdrawn by the Examiner.

Argument #2

24. Appellants disagree with the Examiner's position that the claimed 180° peeling adhesive strength is necessarily results from the combined disclosure of Kishioka (US 2002/0098352) in view of Hitoshi (EP0930322) ("EP '322"). Appellants' arguments to support their position and the Examiner's rebuttal are set forth below.

Argument 2(A)

25. According to appellants, the total thickness of the double-sided PSA sheet of the claimed invention is in the range of from 10 to 50 μm . Appellants assert that Kishioka teaches the thickness of the PSA layer in the range of from 5 to 500 μm and more preferably in the range of from about 10 to 100 μm . However, Kishioka does not specifically teach the total thickness of the double-sided PSA sheet having at least two PSA layers. Additionally, according to appellants, Kishioka discloses thousands of possible combinations of the thicknesses of the two PSA layers and there is no apparent reason to choose two or more PSA layers, each having a thickness within the very broad range taught by Kishioka, such that the total thickness would be within the claimed range of 10 to 50 μm .

26. The Examiner respectfully disagrees. It is noted that Kishioka discloses thickness of the individual PSA layer in general ranges from 5 to 500 μm and from about 10 to 100 μm (0064) and therefore if two PSA layers are used, it is clear that the total thickness would be 10-1,000 μm and 20-200 μm , which clearly overlaps the presently claimed thickness. As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a prima facie case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Further, Kishioka states that the thickness of the PSA layer can be approximately set as long as the handling properties are not deteriorated (see 0064). While Kishioka does not explicitly teach the total thickness of the double-sided PSA sheet, it is submitted that based on the information given in Kishioka's disclosure with respect to the individual thickness of the PSA layer and the fact that Kishioka discloses multilayer PSA tape (0065) selecting the total thickness of the PSA sheet so as to arrive at the appellants' claimed total thickness of the double-sided PSA sheet would have been obvious, motivated by the desire to provide suitable handling properties to the PSA sheet of Kishioka.

Argument 2(B)

27. Appellants argue that EP'322 also fails to teach or suggest the total thickness of a double-sided PSA sheet having at least two PSA layers. According to appellants, EP '322 teaches that the PSA layer has a thickness of from 10 to 100 μm . There are

thousands of possible combinations of the thicknesses of two PSA layers having a thickness within the range taught by EP '322 and there is no apparent reason to choose the two or more PSA layers, each having a thickness within the range taught by EP '332, such that the total thickness would be within the claimed range 10 to 50 μm ." (see brief page 15). Appellants further argue that EP '322 also fails to teach or suggest that the major monomer in the PSA layers is the same monomer. Additionally, appellants assert that the disclosure of EP'322 at paragraph [0036] cannot be fairly interpreted as reading on a double-sided adhesive sheet having at least two PSA layers and no substrate, since this portion of EP '322, specifically teaches "the layer of the pressure-sensitive adhesive is stuck to one surface or both surface of the base material and....can be used a pressure sensitive adhesive sheet having the base material. (see brief page 16).

28. In response, the Examiner submits that while EP' 322 do not disclose all the features of the present claimed invention, EP '322 is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the proportion of the major monomer component constituting each pressure-sensitive adhesive layer is 80% by weight or more based on the whole amount of the monomer components as presently claimed

and in combination with the primary reference, discloses the presently claimed invention. Accordingly, appellants' arguments are not found persuasive.

Argument 2(C)

29. Appellants argue that the total thickness of 10 to 50 μm leads to excellent optical characteristics as can be seen from Examples 1 and 2 in Table 1 of the specification. Therefore, even if Kishioka and EP '322 were combined, one of ordinary skill in the art would not necessarily arrive at the claimed total thickness range and therefore, for at least this reason, it cannot be said that the PSA tape of Kishioka modified by EP '322 would be structurally equivalent to the present invention (see brief page 16).

30. The Examiner respectfully disagrees. It appears from the specification that by reciting "optical characteristics", appellants are referring to "The total luminous transmittance". The Examiner submits that the data is not persuasive because the data is not commensurate in scope with the scope of the present claims, given that the data shown in Example 1 and 2 is narrower in comparison to what is claimed. Further, the Examples 1 and 2 are inventive examples and as such there is no side-by-side comparison with the closest prior art commensurate in scope with the scope of the presently claimed invention. Moreover, as set forth in MPEP 716.02(d), whether unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, "objective evidence of nonobviousness must be commensurate

in scope with the claims which the evidence is offered to support". In other words, the showing of unexpected results must be reviewed to see if the results occurred over the entire claimed range. *In re Clemens*, 622 F.2d 1029, 1036, 206, USPQ 289,296 (CCPA 1980). Appellants have not provided data to show that the unexpected results do in fact occur over the entire claimed range of thickness. Accordingly, appellants' arguments are not found persuasive.

Argument 2(D)

31. Appellants argue that even if Kishioka and Hitoshi were combined, the resulting PSA tape would not be compositionally equivalent to the claimed invention. According to appellants, the claimed invention requires that the major monomer in the PSA layers is the same monomer and Kishioka does not teach that the PSA layers are formed of the same monomer (see brief page 16).

32. The Examiner respectfully disagrees. It is submitted that Kishioka's PSA sheet includes plurality of PSA layers (0065) and Kishioka further discloses same PSA composition as that of claimed by appellants (0039). Further, Kishioka does not teach or suggest that the major monomer in the adhesive layers of his double-sided PSA sheet of his invention be different. Therefore, it would have been obvious to form each PSA layer of Kishioka's adhesive sheet from same monomer, motivated by the desire to

simplify the process of forming the PSA sheet. Accordingly, appellants' arguments are not found persuasive.

Argument #3

33. Appellants assert that "Okabe also fails to teach or suggest at least the combinations of features (5) and (6) above and therefore, even if combined with Kishioka and EP '322, the present invention would not have been achieved." (brief page 17).

34. In response, the Examiner respectfully submits that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Further, while Okabe do not disclose all the features of the present claimed invention, Okabe is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the claim 6 limitation of the touch-panel provided display device having a display device and a touch panel and in combination with the primary reference, discloses the presently claimed invention. Accordingly appellants' arguments are not found persuasive.

35. Additionally, with respect to claim 1 recitation "wherein the pressure-sensitive adhesive layer in the touch panel side has a 180°-peeling adhesive strength (to a norbornene based resin film at a peeling rate of 300 mm/min at 23 °C) of 5.5 N/20 mm or more, and the pressure-sensitive adhesive layer in the display device side has a 180°-peeling adhesive strength (to a glass plate or a triacetyl cellulose film at a peeling rate of 300 mm/min at 23 °C) or not more than 5.0N/20 mm so that the double-sided pressure-sensitive adhesive sheet is repeatedly peelable from the display surface of the display device together with the touch panel", the Examiner respectfully submits following:

36. While appellants have claimed property (i.e. 180° peeling adhesive strength) when the PSA layer is adhered to the touch panel side and display device side, claim 1 does not positively recite that the PSA layer is adhered to e.g. touch panel and/or display device. As such if a prior art discloses the double-sided adhesive tape that is similar in structure and composition to that of the presently claimed adhesive tape, the claimed property is necessarily present in the prior art double-sided adhesive tape. Given that the double-sided adhesive sheet of Kishioka as modified by EP '322 as set forth above is structurally and compositionally equivalent to that of the presently claimed, it is clear that the aforementioned claimed property would necessarily be present in the double-sided adhesive tape of Kishioka as modified by EP '322.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Anish Desai/

Examiner, Art Unit 1788

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/Callie E. Shosho/

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